

**MASTER SYLLABUS**  
**COLLEGE OF BUSINESS AND ECONOMICS, UNIVERSITY OF HAWAII AT HILO**  
**QBA 260—BUSINESS STATISTICS**

- I. Catalog Description:** Application of statistics to business. Includes an introduction to probability and sampling; descriptive statistics, inference, regression and one-way analysis of variance. (GenEd/IntReq: GN, GQ)
- II. Prerequisites:** COBE computer competency certification and one MATH course numbered 104, 104F, 115, 205 or higher
- III. Course Learning objectives:** Upon completing the course, the successful student will be able to:
1. Explain the concepts and statistical techniques used to analyze business data.
  2. Use the essential tools of applied statistics, including data analysis, basic probability, probability models (distributions), sampling theory, confidence interval estimation, hypothesis testing, analysis of variance, regression and correlation.
  3. Apply statistical methodology properly.
  4. Use statistical analysis as decision support in business.
  5. Understand the complex, dynamic, and multidimensional issues and perspectives involved in statistical analyses of business situations.
  6. Employ critical thinking and independent problem-solving skills to business problems.
  7. Communicate clearly the results of a statistical analysis.
- IV. Course materials:** A standard statistics textbook with an on-line course tool for homework completion is used. In addition, problems using Microsoft Excel<sup>®</sup> applications are also utilized.
- V. Evaluation and grading:** Students complete tests that measure their individual abilities to analyze and interpret statistical data. Tests include the use of Microsoft Excel<sup>®</sup> spreadsheets.
- VI. Course Topics:** This course is designed to provide students with a familiarity of the scope and application of statistical analysis. Topics include the following basic statistical techniques: descriptive measures, elementary probability, sampling, estimation and testing, regression, correlation, and analysis of variance. Examples are drawn from business and economics. Students will learn to use Microsoft Excel<sup>®</sup> to perform analyses of data. The emphasis is on business applications rather than rigorous mathematics.

## VII. Support of Program Learning Objectives:

Program Learning Objective	Course Learning Objective(s) Supporting	Targeted Course Performance Level*	Possible Contributions to Program Assessment
Objective 1. Comprehend the fundamental principles of business administration	1	D	Course embedded evaluation: multiple choice questions and problems; pre-post tests; ETS Major Field Exam
Objective 2A. Communicate clearly, logically, and persuasively in Writing	7	I	Course embedded evaluation: multiple choice questions and problems; pre-post tests; CLA Writing Assessment
Objective 2B. Communicate clearly, logically, and persuasively orally			Course embedded evaluation: multiple choice questions and problems; pre-post tests; CLA Writing Assessment
Objective 3. Evaluate and analyze source information, subsequently draw conclusions, and present an argument based upon that analysis	2, 3, 4	D	Course embedded evaluation: multiple choice questions and problems; pre-post tests; CLA Critical Thinking Assessment
Objective 4. Identify, analyze, and decide on courses of action to resolve complex, unstructured problems, using appropriate tools and technology	6	D	Course embedded evaluation: multiple choice questions and problems; pre-post tests
* I = Introduced, D = Developed & Practiced with Feedback, M = Demonstrated at the Mastery, Blank=Not Treated in this Course			

Definitions of Student Mastery Levels set performance levels that are somewhat parallel to Bloom's Taxonomy.

I = the student can identify examples (and non-examples) of the desired outcome, name the elements involved, and answer "objective, multiple-choice, fill-in-the blank" type of test questions showing awareness. (Objective tests are not necessarily simple, but they are most likely to be used at this introductory level.)

D = the student can describe, demonstrate or construct an example of the desired outcome but with guidance about each step. In some cases, the steps to learn the outcome may be spread among more than one course or activity within a course. Also included here is evaluation of existing examples of the outcome (pro's and con's, etc.) Essay questions and short projects would be used as evidence.

M = the student can demonstrate the outcome given a problem statement and appropriate data and tools. The student would need to synthesize skills learned previously in isolation. The skill demonstration would be sufficiently rigorous that an outside stakeholder (future employer) would be satisfied with it for an entry level position after graduation. Term papers, senior projects and research papers, senior portfolios, and capstone coursework would be used as evidence.